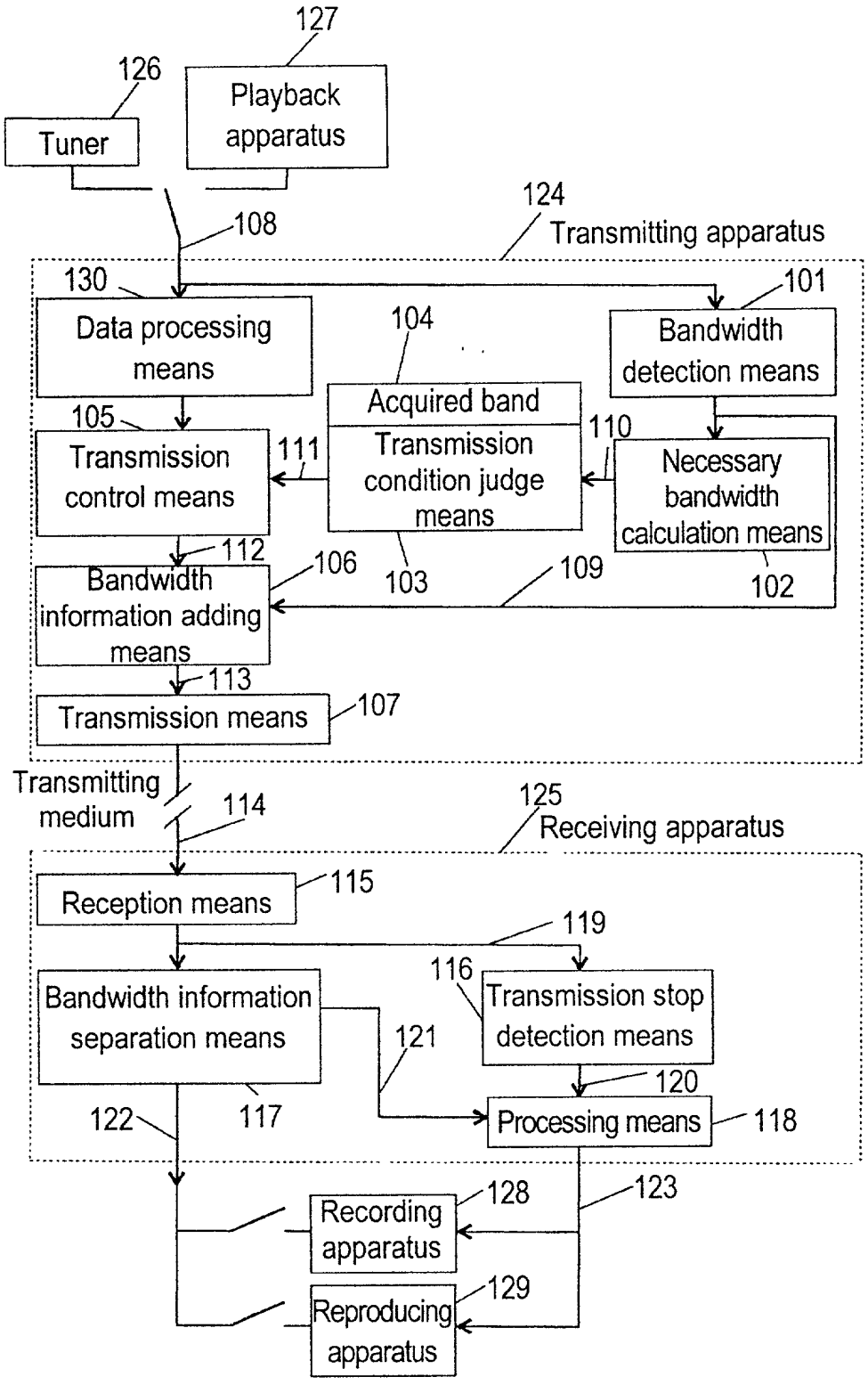
127
126
Playback apparatus
Tuner
124
Transmitting apparatus
108
130
101
Data processing means
104
Bandwidth detection means
Acquired band
105
110
Transmission control means
111
Transmission condition judge means
Necessary bandwidth calculation means
112
106
103
109
102
Bandwidth information adding means
113
Transmission means
107
Transmitting medium
114
125
Receiving apparatus
Reception means
115
119
116
Bandwidth information separation means
Transmission stop detection means
121
120
122
117
Processing means
118
123
128
Recording apparatus
129
Reproducing apparatus

FIG. 1

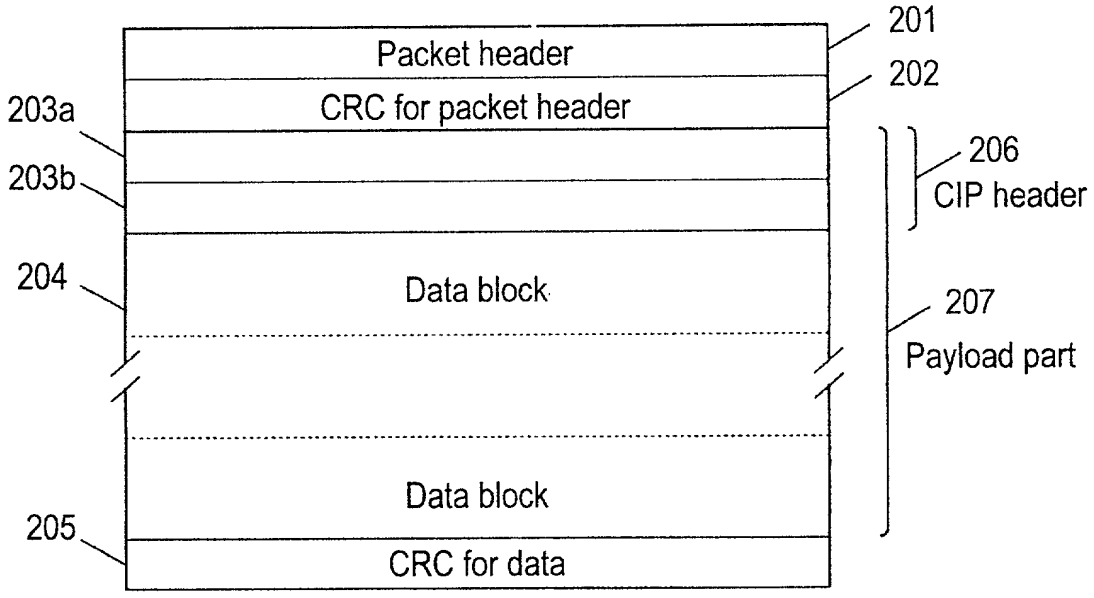
Packet header
CRC for packet header
Data block
Data block
CRC for data
201
202
203a
203b
204
205
206
CIP header
207
Payload part

FIG. 2

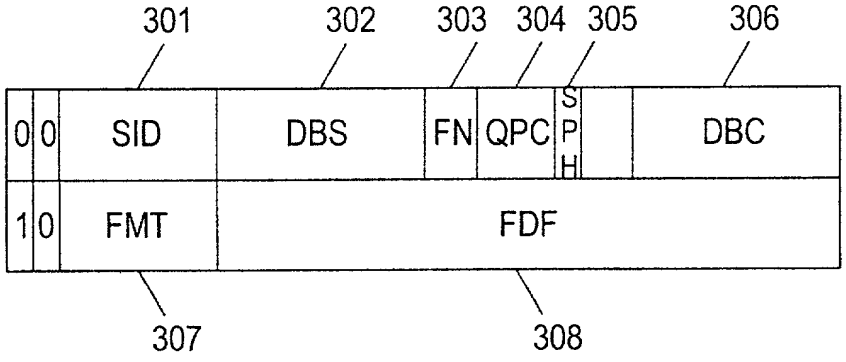
301
302
303
304
305
306
0
0
SID
DBS
FN
QPC
SPH
DBC
1
0
FMT
FDF
307
308

FIG. 3

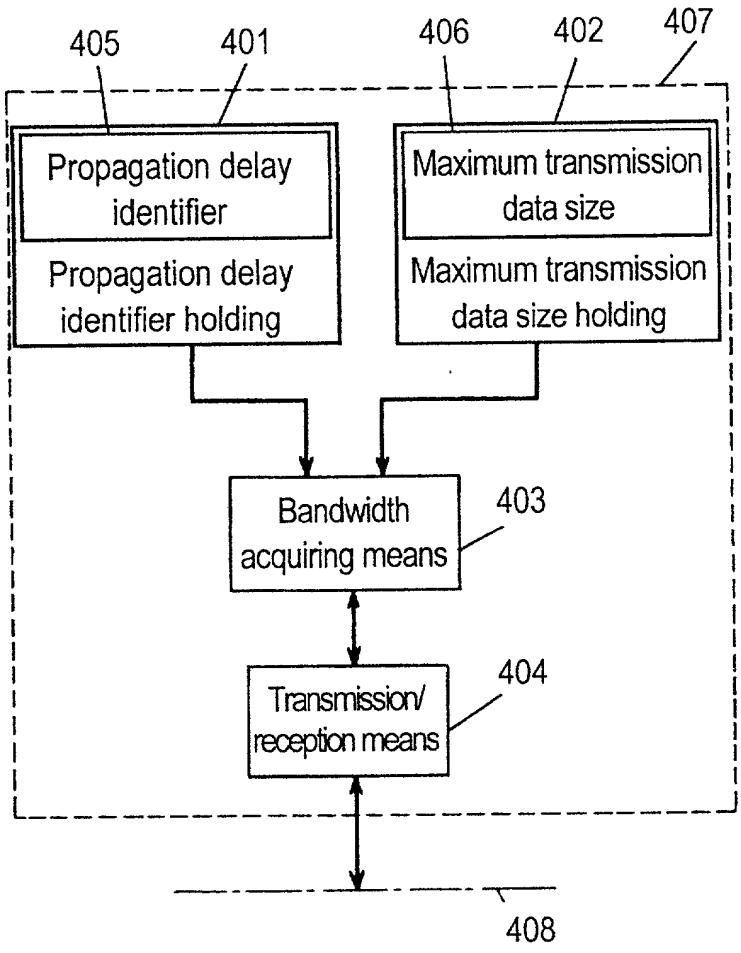
405
401
406
402
407
Propagation delay identifier
Propagation delay identifier holding
Maximum transmission data size
Maximum transmission data size holding
Bandwidth acquiring means
403
Transmission/ reception means
404
408

FIG. 4

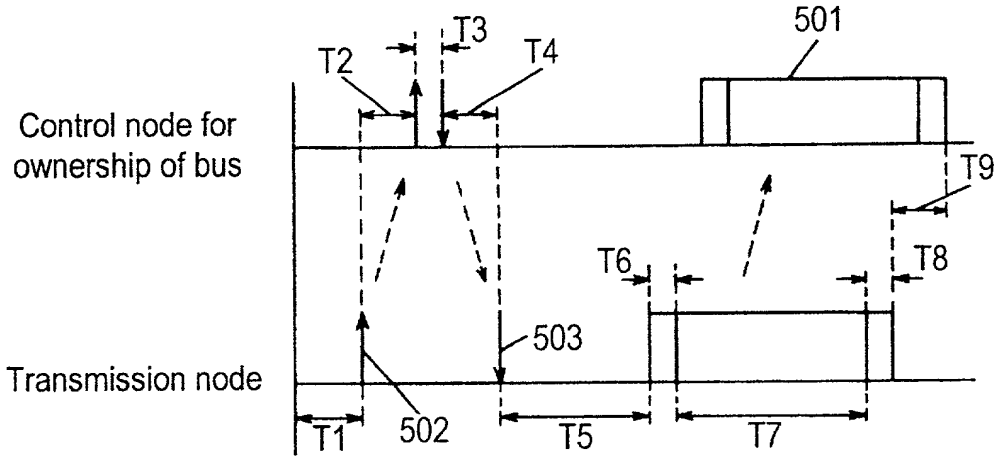
T2
T3
T4
501
Control node for ownership of bus
T9
T6
T8
503
Transmission node
T1
502
T5
T7

FIG. 5

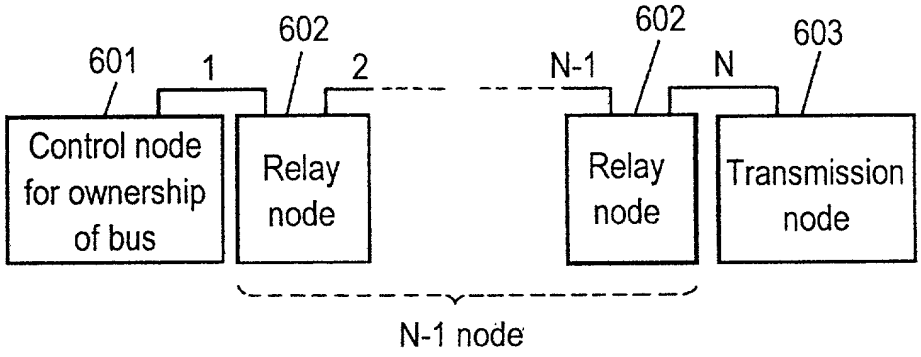
601
1
602
2
N-1
602
N
603
Control node for ownership of bus
Relay node
Relay node
Transmission node
N-1 node

FIG. 6

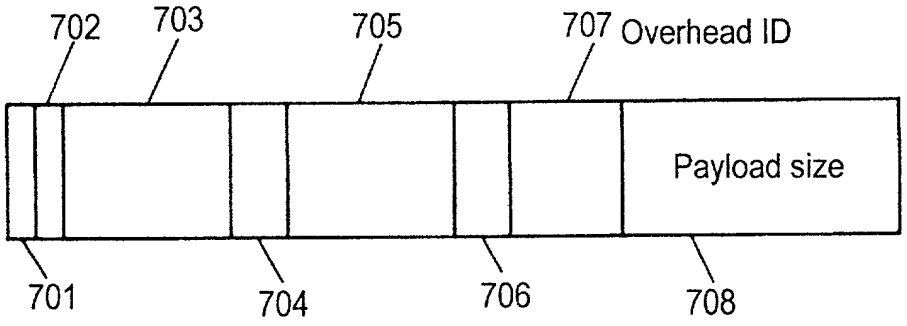
702
703
705
707 Overhead ID
Payload size
701
704
706
708

FIG. 7

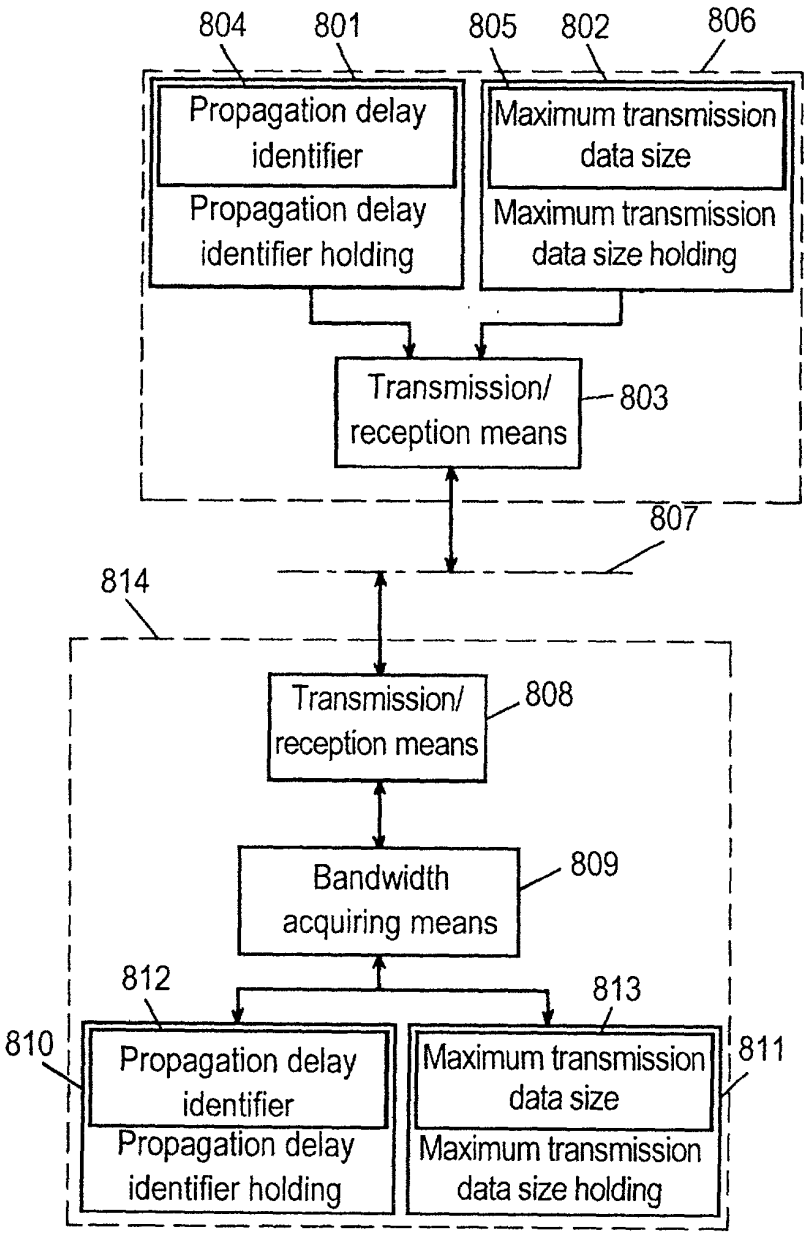
804
801
805
802
806
Propagation delay identifier
Propagation delay identifier holding
Maximum transmission data size
Maximum transmission data size holding
Transmission/ reception means
803
807
814
Transmission/ reception means
808
Bandwidth acquiring means
809
812
813
810
Propagation delay identifier
Propagation delay identifier holding
Maximum transmission data size
Maximum transmission data size holding
811

FIG. 8

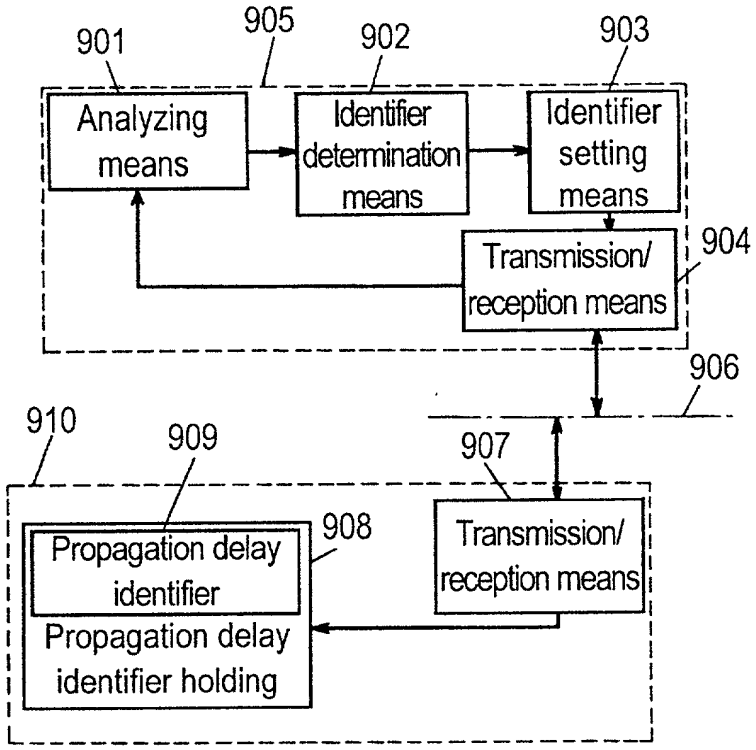

FIG. 9

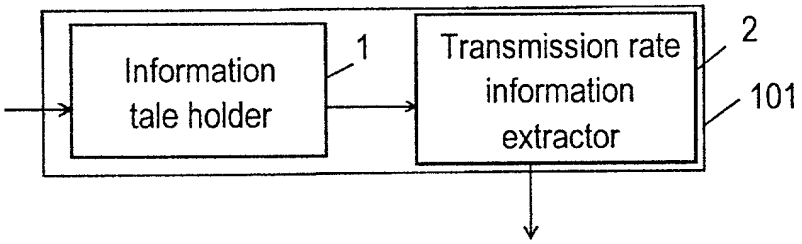

FIG. 10

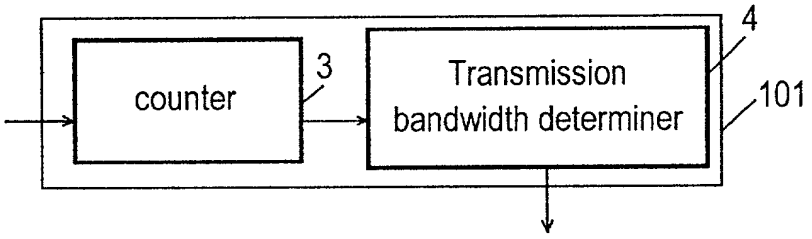

FIG. 11

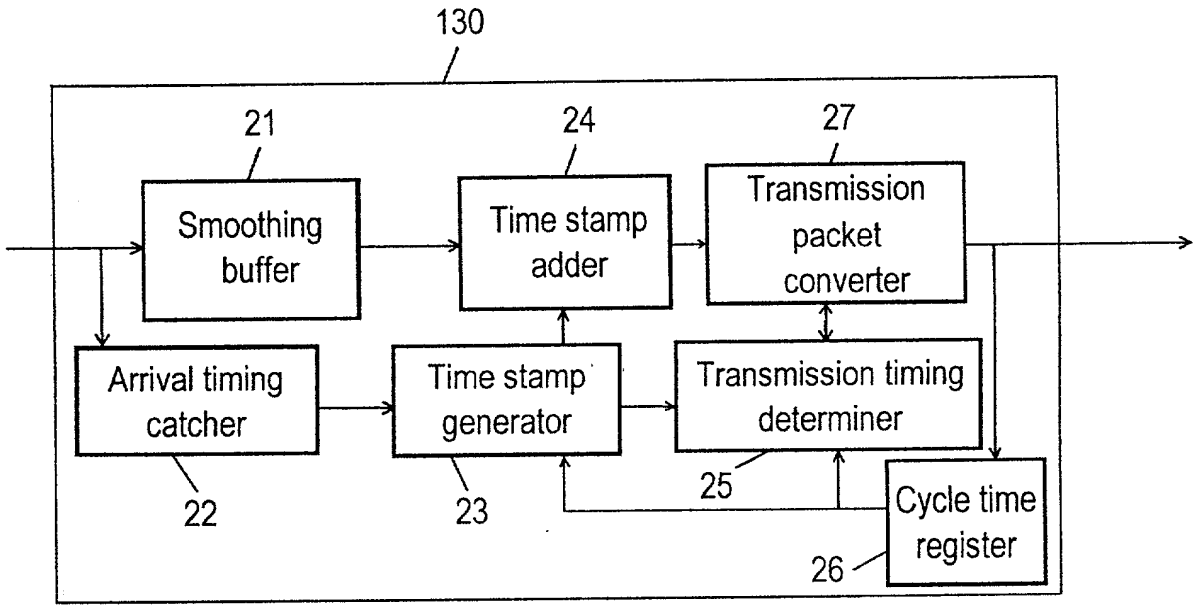
130
21
24
27
Smoothing buffer
Time stamp adder
Transmission packet converter
Arrival timing catcher
Time stamp generator
Transmission timing determiner
22
23
25
Cycle time register
26

FIG. 12

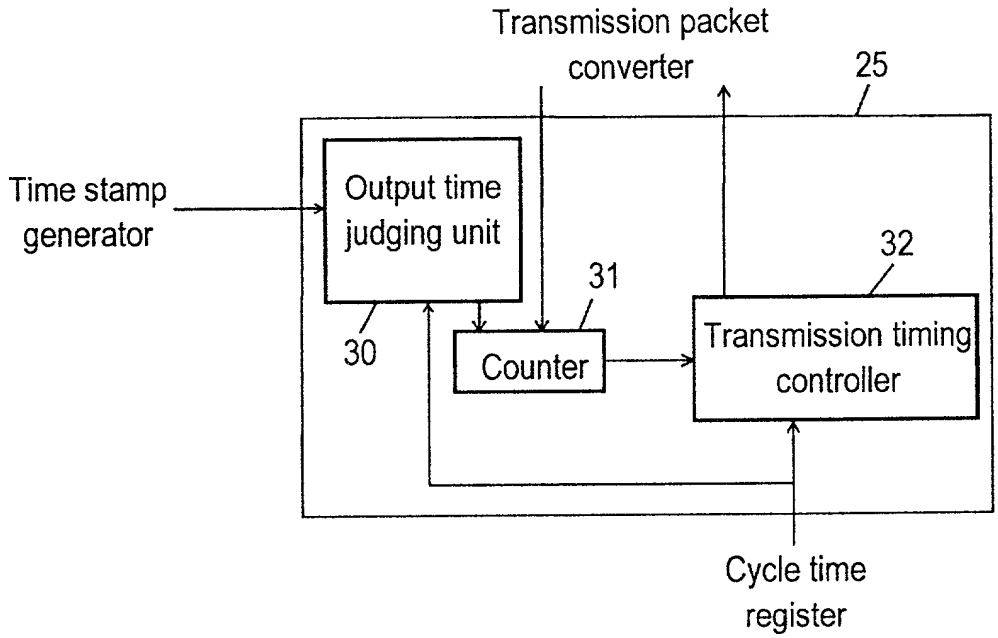
Transmission packet converter
25
Time stamp generator
Output time judging unit
32
31
30
Counter
Transmission timing controller
Cycle time register

FIG. 13

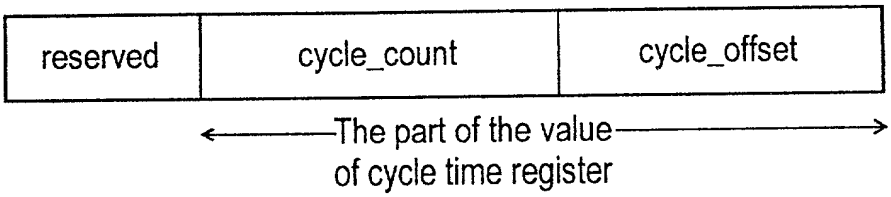

FIG. 14

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NOTATIONS:

1...information table holder
2...transmission rate information extractor
3...counter
4...transmission bandwidth determiner
21...smoothing buffer
22...arrival timing catcher
23...time stamp generator
24...time stamp adder
25...transmission timing determiner
26...cycle time register
27...transmission packet converter
30...output time judging unit
31...counter
32...transmission timing controller
101...bandwidth detection means
102...necessary bandwidth calculation means
103...transmission condition judge means
104...acquired bandwidth
105...transmission control means
106...bandwidth information adding means
107...transmission means
108, 112, 122...data
109...data bandwidth
110...necessary bandwidth at transmitting medium
111...transmission condition judge result
113, 119...bandwidth information added data
114...transmitting medium
115...reception means
116...transmission stop detection means
117...bandwidth information separation means
118...processing means
120...transmission stop detection result
121...bandwidth information

123...direction signal to recording and reproducing actions

124...transmitting apparatus

125...receiving apparatus

126...tuner

127...playback apparatus

128...recording apparatus

129...reproducing apparatus

130...data processing means

201...packet header

202...CRC for packet header

203a, 203b, 206...CIP header

204...data block

205...CRC for data

207...payload part

301...SID (Source node ID)

302...DBS (Data Block Size)

303...FN (Fraction Number)

304...QPC (Quadlet Padding Count)

305...SPH (Source Packet Header)

306...DBC (Data Block continuity Counter)

307...FMT (Format)

308...FDF (Format Dependent Field)

401, 801, 810, 908...propagation delay identifier holding means

402, 802, 811...maximum transmission data size holding means

403, 809...bandwidth acquiring means

404, 803, 808, 904, 907...transmission/reception means

405, 804, 812, 909...propagation delay identifier

406, 805, 813...maximum transmission data size

407, 806, 814, 910...transmitting apparatus

408, 807, 906...transmitting medium

501...packet

502...request for ownership of bus

503...permission of bus use
601...control node for ownership of bus
602...relay node
603...transmission node
701...on-line identifier
702...broadcast connection counter
703...point-to-point connection counter
704...non-use field
705...channel
706...data rate
707...overhead ID
708...payload size
901...analyzing means
902...identifier determination means
903...identifier setting means
905...transmission control apparatus